

Clean Versions of Replacement Claims

Please amend claims 1-4 and 6-11 to conform to the following clean versions.

1. A motion control system having a set of control nodes each corresponding to an axis of the motion control system, each control node having a clock and each control node maintaining a synchronized time among the clocks and each applying a corresponding control value to an actuator for the corresponding axis when a trigger time for the corresponding control value matches the synchronized time in the corresponding clock.

A1  
2. The motion control system of claim 1, wherein each control node participates in a protocol for synchronizing the clocks via a communication link.

3. The motion control system of claim 1, wherein each control node associates the corresponding control value to the corresponding trigger time according to a motion control function for the corresponding axis.

4. The motion control system of claim 3, wherein each control node includes means for triggering an application of the corresponding control value to the corresponding actuator in response to the corresponding trigger time and the synchronized time.

A2  
cont  
6. A control node for a motion control system, the control node having a clock and maintaining a synchronized time in the clock and having means for applying a control value to an actuator for an axis of the motion control system when a trigger time for the

control value matches the synchronized time in the clock.

7. The control node of claim 6, further comprising means for participating in a protocol for synchronizing the clock via a communication link.

8. The control node of claim 6, further comprising means for associating the control value to the trigger time according to a motion control function for the axis.

9. The control node of claim 8, further comprising means for triggering an application of the control value to the actuator in response to the trigger time and the synchronized time.

10. The control node of claim 6, further comprising a set of processing resources which are scaled according to a motion control function for the axis.

11. A motion control system, comprising:

a set of control nodes each corresponding to an axis of the motion control system, each control node having a clock and each control node maintaining a synchronized time among the clocks and each applying a corresponding control value to an actuator for the corresponding axis when a trigger time for the corresponding control value matches the synchronized time;

selector node that determines a motion control function to be applied to the axes by transferring a message to each control node that specifies the control value to be applied by each control node.